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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/034,336	03/04/1998	HAJIME AGA	AGA-6	3212

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EXAMINER

MORAN, MARJORIE A

ART UNIT PAPER NUMBER

1631

DATE MAILED: 03/24/2003

33

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/034,336

Applicant(s)

AGA ET AL.

Examiner

Marjorie A. Moran

Art Unit

1631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 January 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 5,10 and 31-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5,10 and 31-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/24/03 has been entered. Claims 5, 10, and 31-36 are pending.

All rejections and objections not repeated below are hereby withdrawn. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Amended claims 5, 10, and 31-36 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a NEW MATTER rejection.

Methods wherein a decrease in active-oxygen-eliminating activity is associated with associated with processing of a fresh plane or edible part thereof are new matter. The originally filed specification teaches a method for inhibiting the decrease in active-oxygen-eliminating

Art Unit: 1631

activity by adding trehalose to a fresh plant or edible part thereof, on pages 3-4, and teaches that the plant or edible part may be disrupted, minced, pulverized, extracted, or cut (i.e. processed), on pages 6-7 and 8-9, and Experiments 1-3. Originally filed claim 5 teaches a method of inhibiting the reduction of active-oxygen-eliminating activity by incorporating trehalose into a plant substance; originally filed claim 5 limits the plant substance to one in the form of a sliced, disrupted, pulverized, or extracted (i.e. processed) edible part. The originally filed specification teaches addition of trehalose to sliced fresh carrots during boiling/processing (Example B-18), but does not teach loss of any activity associated with processing a plant or plant parts. Applicant points to page 8 of the specification for support for the amended claims. Page 8 discloses antioxidants which may be endogenously present in plants, or which maybe added to plants/edible parts, but does not disclose that antioxidant activity in plants is decreased during processing. Nowhere do the originally filed claims or specification recite or teach that the reduction or decrease in active-oxygen eliminating activity is associated with processing a fresh plant or edible part thereof, therefore the claims are rejected for reciting new matter.

### ***Claim Rejections - 35 USC § 103***

Examiner's note: As set forth in previous office actions, for ease of reference, the examiner will use the term "antioxidant" to refer to "active-oxygen-eliminating" activities and compounds, with the understanding that applicant intends "active-oxygen-eliminating", as recited in the claims, to encompass a broader range of activities and compounds than "antioxidants."

Art Unit: 1631

Claims 5, 10, and 31-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over MARUTA *et al.* (US 5,472,863), as supported by CARDONA (DE 3552309 A1), as previously set forth and maintained in previous office actions.

Applicant's arguments filed 1/24/03 have been fully considered but they are not persuasive. In response to the argument that the specification, on page 10, shows that the combination of trehalose and pullulan "exerts a stronger reduction-inhibitor activity of plant active oxygen eliminating activity," which is neither disclosed nor suggested by the cited references, it is noted that page 10 of the instant specification merely discloses that pullulan can be "satisfactorily used together" with trehalose. This is NOT a disclosure that a combination of trehalose and pullulan give greater stability to antioxidant activity in plants than either alone, or than would be expected by adding the known effects of the two individually (i.e. there is no evidence of a synergistic effect). The specification does disclose in Table 1, on page 16, that trehalose and pullulan EACH (individually) has better stabilizing activity than other saccharides. There is no evidence anywhere in the specification with regard to the stabilizing activity of cyclodextrin, alone or in combination with trehalose. The specification does NOT teach anywhere that activity of a combination of either pullulan or cyclodextrin with trehalose results in stabilizing activity higher than would be expected by the combination thereof (i.e. there is no evidence for a synergistic effect of either pullulan or cyclodextrin with trehalose). It is noted that applicant has admitted in a previous response that MARUTA teaches that trehalose may be used as a stabilizer and "quality-improving" agent, and admits that MARUTA teaches that trehalose may be used as such in a variety of compositions, including a food product, therefore the fact that trehalose "improves" stability of a food product is not an unexpected result. The specification does not provide any evidence for unexpected results with regard to synergy of trehalose with either pullulan or cyclodextrin, as set forth above, therefore applicant's arguments

with regard to "stronger" activity of a combination of trehalose and pullulan are not persuasive, and the rejection is maintained.

Claims 5, 10, and 31-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over MARUTA *et al.* (US 5,472,863), as supported by CARDONA (DE 3552309 A1), in view of MANDAI *et al.* (US 5,543,513), as set forth and maintained in previous office actions.

Applicant's arguments filed 1/24/03 have been fully considered but they are not persuasive. In response to applicant's arguments with regard to a synergistic effect for a combination of trehalose with either pullulan or cyclodextrin, it is noted, as set forth above, that the specification fails to provide any evidence to support this argument. It is noted that applicant has previously admitted that both MARUTA and MANDAI teach stabilization of food products by trehalose. Further, MANDAI specifically teaches that pullulan and cyclodextrin are stabilizers which may be used in combination with trehalose to retain "effective components" of the material with which they are mixed (col. 7, line 35-col. 8, line 30), thereby suggesting a combination of any of these with food to stabilize any "effective component" therein, including antioxidants. For these reasons, applicant's arguments are not persuasive, and the rejection is maintained.

### **Conclusion**

No claims are allowed.

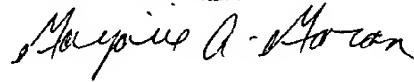
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marjorie A. Moran whose telephone number is (703) 305-2363. The examiner can normally be reached on Monday to Friday, 7:30 am to 4 pm EST.

Art Unit: 1631

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on (703) 308-4028. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4242 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3524.

MARJORIE MORAN  
PATENT EXAMINER

A handwritten signature in cursive script that reads "Marjorie A. Moran".

mam  
March 22, 2003